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#### Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

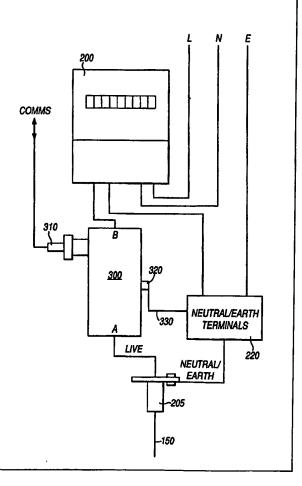
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#### (54) Title: POWER LINE TRANSMISSION

### (57) Abstract

A power line communications network carries power and communications signals over power lines. Fitted in the power line is a fuse unit (300) which has means for coupling communications signals to and/or from the power line. The fuse unit may include a high-pass filter. The fuse unit (300) is adapted to mate with an existing fuse socket in the power line to replace an existing fuse, thereby minimising disruption and simplifying installation. The fuse unit can also include means for impeding flow of non-power signals along the line.



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# INTERNATIONAL SEARCH REPORT

Interna ial Application No PCT/GB 98/00173

			FC1/00 30/001/3
A. CLASS	IFICATION OF SUBJECT MATTER H02J13/00 H04B3/56		
According t	o International Patent Classification (IPC) or to both national cla	ssification and IPC	
	SEARCHED		
IPC 6	ocumentation searched (classification system followed by class H02J H04B H01H	ification symbols)	
Documenta	tion searched other than minimum documentation to the extent	that such documents are included	d in the fields searched
Electronic d	lata base consulted during the international search (name of da	ata base and, where practical, see	arch terms used)
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the	e relevant passages	Relevant to claim No.
Х	US 4 124 835 A (CAHILL JR WILL November 1978 see column 2, line 43 - line 6 1-3	-	1,2,4
	see column 3, line 32 - line 4	15	
X A	GB 2 062 376 A (SWISH PROD) 20	May 1981	18 1-17
	see page 3, right-hand column, line 117; figures 7-12	, line 80 -	1-1,
A	WO 94 09572 A (BROWN PAUL A ;N (GB)) 28 April 1994 cited in the application see abstract; figure	NORWEB PLC	1-18
		-/	
X Furth	ner documents are listed in the continuation of box C.	X Patent family men	nbers are listed in annex.
"A" docume consid "E" earlier d filing d "L" docume which citation	nt which may throw doubts on priority claim(s) or is cited to establish the publication date of another n or other special reason (as specified)	"T" later document publish or priority date and no cited to understand the invention  "X" document of particular oannot be considered involve an inventive st	ed after the international filing date t in conflict with the application but e principle or theory underlying the relevance; the claimed invention novel or cannot be considered to the purpose when the document is taken alone relevance; the claimed invention
other n "P" docume later th	nt published prior to the international filing date but an the priority date claimed	document is combined	to involve an inventive step when the d with one or more other such docu- ion being obvious to a person skilled ne same patent family
Date of the a	actual completion of the international search		nternational search report
20	0 April 1998		1 4. 07. 98
Name and m	nailing address of the ISA  European Patent Office, P.B. 5818 Patentiaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Lampe, S	
DOTUBAD	10 (second sheet) (July 1992)		

## INTERNATIONAL SEARCH REPORT

Interne dal Application No
PCT/GB 98/00173

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	tion) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
Α	FR 2 349 240 A (FELTEN & GUILLEAUME CARLSWERK) 18 November 1977 see page 4, line 22 - line 40; figure 1	1-18	
A	EP 0 119 187 A (HAWLAN HANS) 19 September 1984	1-18	
	see page 26, line 1 - page 27, line 1; figure 4		
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### INTERNATIONAL SEARCH REPORT

PCT/GB 98/00173

Box I Observations where certain claims were found unsearchable (Continuation of it m 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
Claims Nos.:     because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
<ol> <li>claims 1-18: fuse unit incorporating means for coupling communications signals to and/or from the power line</li> <li>claim 19: power line monitoring unit for coupling communications signals to and/or from the power line</li> </ol>
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. X No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  1-18
Remark on Protest - The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Internal lial Application No PCT/GB 98/00173

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